

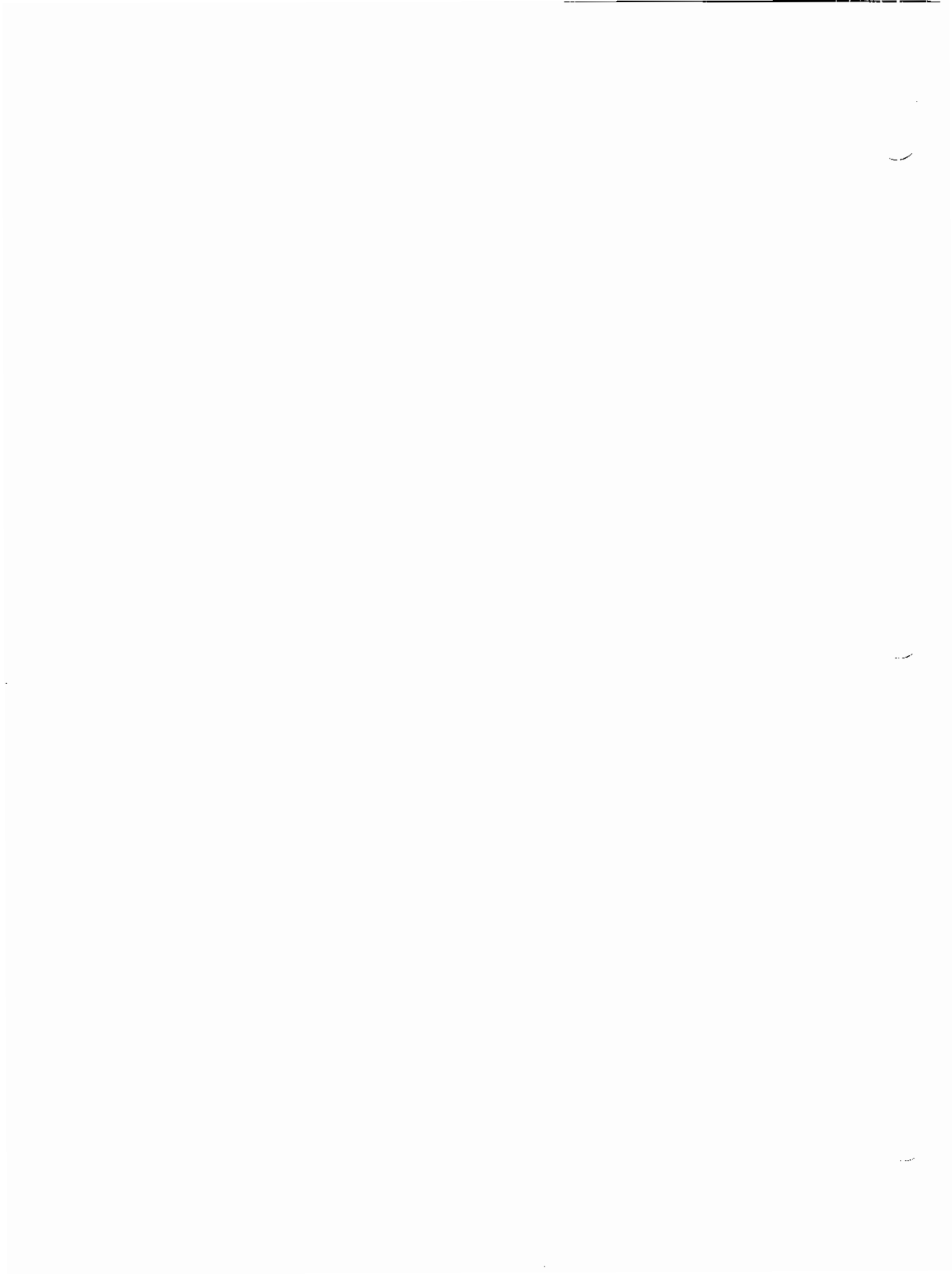
UNITED STATES DEPARTMENT OF AGRICULTURE
Federal Grain Inspection Service
P.O. Box 96454
Washington, D.C. 20090-6454

GRAIN INSPECTION HANDBOOK
Book III
Chapter 3
9-11-90

CHAPTER 3

CERTIFICATION OF SHIPLOTS, UNIT TRAINS, AND LASH BARGES

<u>Section Number</u>	<u>Section</u>	<u>Page Number</u>
3.1	INTRODUCTION.....	3-1
3.2	OPTION 1 CERTIFICATION.....	3-1
3.3	OPTION 2 CERTIFICATION.....	3-7
3.4	CERTIFICATING DOCKAGE.....	3-8
3.5	CERTIFICATING SUBCLASS.....	3-11
3.6	CERTIFICATING WHEAT PROTEIN.....	3-12
3.7	CERTIFICATING SOYBEAN OIL AND PROTEIN....	3-15



3.1 INTRODUCTION

This chapter establishes procedures for certificating shiplots, unit trains, and lash barges.

Two certification options (Option 1 and Option 2) are available for grain loaded or unloaded from shiplots, unit trains, and lash barges. Under Option 1, the lot offered for inspection is certificated as being a specific U.S. grade. Under Option 2, the lot offered for inspection is certificated as being equal or better in quality than the grade specified by the contract.

Prior to the inspection of a lot, the applicant shall declare the certification option desired. If a request for a specific certification option is not received by official personnel, check with the applicant to determine what certification option is desired. The applicant may change the certification option any time before the issuance of the certificate.

Special certification procedures are also discussed for dockage, wheat subclass, wheat protein, and soybean oil and protein.

3.2 OPTION 1 CERTIFICATION

A. Determining Uniformity. A lot that is uniform in quality for the declared grade under the inspection plan is certificated as a single lot provided the average quality meets contracted grade. If the lot presented for inspection is not uniform in quality for the declared grade, each portion is certificated separately according to quality.

A lot is considered not uniform in quality if:

1. The weighted or mathematical average of the lot is inferior to the declared quality.

2. The lot contains a material portion as determined by the inspection plan.

3. A better grade prevails but the lot is not uniformly loaded for the better grade after reapplying the inspection plan.

If a load order grade is not received for the lot, determine uniformity based on the average quality of the grain in the lot. If the lot is not uniformly loaded for the average quality of the lot, the applicant may request separate certification of the material portions or request a determination for uniformity for the next lower grade.

B. Certification of Uniform Lots. If a lot is uniform in quality, the grade of the lot is based on the applicable weighted or mathematical average of the subplot results. Compare the weighted or mathematical average to the declared grade before assigning the grade. Based on this comparison, certificate the lot according to the following procedure:

1. Certificate the lot according to the weighted or mathematical average if the grade of the lot, as indicated by the weighted or mathematical average, is the same as the declared grade.

Example:

Load Order Grade - U.S. No. 3 Yellow corn

Weighted/Mathematical Average Grade:
U.S. No. 3 Yellow corn.

Lot is uniformly loaded for U.S. No. 3 Yellow corn.

Certification: U.S. No. 3 Yellow corn

2. The grade of the lot, as determined by the weighted or mathematical average, is better than the declared grade.

- a. Better grade prevails during loading. When a better grade prevails during loading (over 50 percent of the lot, by weight, is of a better grade than the declared grade), the inspection plan is reapplied in chronological order to determine if the lot is uniform for the better grade. If the lot is uniform for the better grade, certificate the lot for the better grade.

Example Log:

Load Order Grade - U.S. No. 3 Yellow corn

<u>Sublot</u>	<u>Quantity (bu.)</u>	<u>Grade</u>	<u>BCFM (%)</u>	<u>DKT (%)</u>
1	40,000	2YC	2.3	3.7
2	40,000	2YC	2.7	4.0
3	40,000	2YC	2.6	4.3
4	40,000	3YC	*3.2	4.2
5	40,000	2YC	2.3	4.5
6	40,000	3YC	2.6	*5.7
7	40,000	2YC	2.5	5.0
8	40,000	2YC	2.6	4.9
9	40,000	2YC	2.4	4.7
10	40,000	2YC	2.6	4.7
11	40,000	2YC	2.5	4.8
<u>Weighted Average:</u>		2YC	2.3	4.6

* Exceeds the grade limit for U.S. No. 2, but is within the breakpoint.

Procedure: Reapply the tolerances for U.S. No. 2.

Certification: Certificate lot as U.S. No. 2 Yellow corn.

b. Load order grade prevails during loading. When the weighted/mathematical average indicates that a better grade should apply, but the load order grade prevails during loading (over 50 percent of the lot, by weight, is the same grade as the load order grade), certificate the lot for the load order grade. A lot is not uniform for a better quality grade when the load order grade prevailed during loading.

Since, in this situation, the grade shown on the grade line does not correspond with the factor averages, the following statement is shown in the remarks section of the certificate:

"The above grade of (grade certificated) prevailed during loading. However, the lot would have graded (average grade) based on the average of the subplot results."

Example:

Load Order Grade - U.S. No. 3 Yellow corn

Entire lot grades U.S. No. 3 Yellow corn

60% account BCFM

40% account DKT

Weighted/Mathematical Average Grade:

U.S. No. 2 Yellow corn.

Lot is not uniform for U.S. No. 2 Yellow corn.

Prevailing grade: U.S. No. 3 Yellow corn

Certification: U.S. No. 3 Yellow corn

(Use actual average results
reported on inspection log.)

C. Certification of Non-Uniform Lots.

1. The grade of the lot, as determined by the weighted/mathematical average, is inferior to the declared grade. Because of loading tolerances, a lot can sometimes meet the requirements of the inspection plan, but the final factor averages are inferior to the factor limits for the declared grade. The lot is not considered uniform in quality if this occurs. Separate certificates are issued for each portion (sublot) by grade.

2. A better grade prevails during loading but the lot is not uniform to it. When the lot is not uniform for the better grade, as determined by the established procedures, all portions (sublots) of the lot are certificated separately, by grade.

Example Log:

Load Order Grade - U.S. No. 3 Yellow corn

<u>Sublot</u>	<u>Quantity (bu.)</u>	<u>Grade</u>	<u>BCFM (%)</u>	<u>DKT (%)</u>
1	40,000	2YC	2.3	4.7
2	40,000	2YC	2.6	4.0
3	40,000	3YC	*3.1	4.3
4	40,000	2YC	3.0	4.2
5	40,000	3YC	**3.3	5.0
6	40,000	2YC	2.3	4.7
7	40,000	2YC	2.4	4.9
8	40,000	2YC	2.3	4.7
9	40,000	2YC	2.3	4.7
10	40,000	2YC	3.0	4.8
11	40,000	<u>2YC</u>	<u>2.5</u>	<u>4.6</u>
<u>Weighted Average:</u>		2YC	2.6	4.6

* Exceeds the grade limit for U.S. No. 2 and cusum value is within the breakpoint.

** Exceeds the grade limit for U.S. No. 2 and cusum value exceeds the breakpoint.

Procedure: Reapply the tolerances for U.S. No. 2.

(Lot is not uniform for U.S. No. 2.)

Certification: Issue two certificates.

One certificate for 360,000 bu. U.S. No. 2 YC

One certificate for 80,000 bu. U.S. No. 3 YC
 (Sublots 3 and 5 account BCFM)

3. Combining Material Portions. A material portion is certificated as a separate lot (or lots). When more than one material portion is found during the loading of a lot, all material portions that are material portions for the same factor and are of the same numerical grade are considered "like" material portions. Like material portions are averaged and certificated together. Only material portions of the same inspection level (reinspection, appeal inspection, or Board appeal inspection) are combined.

Example:

Load order grade: U.S. No. 3 Yellow corn

MP 1 exceeds BCFM breakpoint

MP 2 exceeds BCFM breakpoint

MP 3 exceeds DKT breakpoint

All MP's grade U.S. No. 4 Yellow corn. MP 1 and MP 2 are combined and certificated as one portion because both are material portions for the same factor. MP 3 is certificated separately because it is a material portion on a different factor.

4. Issuing the Correct Certificate for Material Portions. The type of certificate issued for a material portion depends on: (1) the applicants use of the offgrade grain; (2) whether or not the applicant requests a certificate; or (3) if official personnel deem a certificate is necessary.

If the applicant elects to leave the material portion on board the carrier, a separate certificate is issued. Use an appropriate stowage statement to identify the location of the material portion in relation to the remainder of the lot. Also show the estimated quantity of grain for each lot certificated.

Divided lot inspection certificates are not issued for the material portions or the remainder of the lot when a material portion remains on board the carrier.

Inspection certificates are not issued when a material portion is removed from the lot by discharging the carrier or returning the grain from a shipping bin. If an applicant requests a certificate or a certificate is deemed necessary by official personnel, the following certificates are issued:

a. "Out" certificate. Issue an "out" certificate if the material portion, or a part of the material portion, is removed from the carrier. An "out" certificate is issued if a part of the grain removed from the carrier is also returned from a shipping bin.

b. "Local" certificate. Issue a "local" certificate if the entire material portion is returned from a shipping bin.

3.3 OPTION 2 CERTIFICATION

A. General. When a contract specifies an Option 2 grade designation, the applicant may specifically request Option 2 certification in the load order or simply state "or better" as part of the grade designation.

Under Option 2 certification, no limitation is placed on the amount of better quality grain in the lot. When a lot meets or is of better quality than the declared grade, include the term "or better" immediately following the numerical or sample grade designation and show the weighted/mathematical averages for the factors on the inspection certificate. The term "or better" is not used when grain has a U.S. No. 1 grade designation.

B. Material Portions Under Option 2. When material portions occur during the loading or unloading operation, certification of the lot under Option 2 depends on the reasons for the material portions and whether or not the material portions are removed from the lot.

1. Material Portion Removed from Lot. When a material portion is removed from the lot, certificate the material portion (if requested or deemed necessary by official personnel) under the Option 1 grade designation. Certificate the remainder of the lot using an Option 2 grade designation.

2. Material Portion Not Removed from Lot.

a. Material portion due to grade determining factors. When a material portion exists due to a grade determining factor and it is not removed from the lot, the conditions for an Option 2 grade designation are not satisfied. Certificate the material portion(s) and the remainder of the lot using an Option 1 grade designation.

Divided-lot certificates are not issued for the material portion or for the remainder of the lot when the material portion remains on the carrier.

b. Material portion due to non-grade determining factors.

When a material portion exists due to a non-grade determining factor (i.e., dockage, moisture, and protein) and it is not removed from the lot, the portions of the lot accepted by the inspection plan are combined and certificated under Option 2. The material portions are certificated under Option 1 or Option 2 as requested by the applicant.

Material portions certificated under Option 1 are combined according to like numerical grades and like non-grade determining factors. Material portions certificated under Option 2 are combined according to like or better numerical grades having like non-grade determining factors. Like material portions for dockage and wheat protein are material portions having results within a 1.0 percent range. Other non-grade determining factors are combined by using the average factor result for certification purposes. Do not apply inspection tolerances when determining which material portions are to be combined.

Divided-lot certificates are not issued for the material portion or for the remainder of the lot when the material portion remains on the carrier.

3.4 CERTIFICATING DOCKAGE

The grain standards require the certification of dockage, as a part of the grade designation for those grains which have dockage. Therefore, procedures for the, certification of dockage, both when the percentage is not declared and when the percentage is declared, are provided. The procedures are applicable to both Option 1 and Option 2 grade designations.

It is not necessary to declare the percentage of dockage on the load order unless the percentage of dockage is specified in the sales contract.

A. Percentage of Dockage Not Declared.

1. Wheat and Rye. When the percentage of dockage is not declared, do not apply inspection tolerances. Record individual subplot dockage results on the inspection log and certificate the average of all subplot results. If the differences between the lowest and highest subplot dockage result exceeds 1.0 percent, the applicant has the following alternatives:

a. Certificate the average dockage subplot result for the entire lot and include the following statement in the "Remarks" section of the certificate.

"Sublot dockage results ranged from (lowest) percent to (highest) percent."

b. Certificate as one lot all sublots that are within 1.0 percent of the lowest subplot dockage value. Using the identical procedure, combine the remaining sublots in 1.0 percent increments.

Sublots exceeding the 1.0 percent range are not considered material portions. Therefore, the applicant may not request a review inspection of the subplot exceeding the 1.0 percent range limit. The applicant may, however, request a review inspection of the entire lot.

Example: Load Order Grade: U.S. No. 2 or better HRW Wheat

Sublot	Grade	% DKG
1	1 HRW	0.49
2	2 HRW	0.56
3	1 HRW	0.78
4	2 HRW	0.89
5	2 HRW	1.09
6	2 HRW	0.79
7	1 HRW	1.75
8	2 HRW	0.92
9	2 HRW	1.41
10	2 HRW	1.65
Average:		1.03
Range:		0.5% - 1.8%

Certification Alternatives.

Alternative a: Show average percent of dockage and use range statement.

Example: U.S. No. 2 or better HRW Wheat, Dockage 1.0%

Remarks: Sublot dockage results ranged from 0.5 percent to 1.8 percent.

Alternative b: Issue separate certificates. Certificate as one lot all sublots that are within 1.0 percent of the lowest subplot dockage value. Using the identical procedures, combine the remaining sublots in 1.0 percent increments.

Example: U.S. No. 2 or better HRW Wheat, Dockage 0.9%
(excludes sublots 7 and 10)

U.S. No. 2 or better HRW Wheat, Dockage 1.7%
(includes sublots 7 and 10)

2. Other Grains. When the percentage of dockage is not declared, do not apply inspection tolerances. Record individual subplot results on the inspection log.

Upon completion of loading or unloading, determine the average subplot dockage and apply the corresponding inspection tolerance to each subplot. If the dockage in each subplot is acceptable, as determined by the inspection tolerance, certificate the average.

If dockage results do not meet the inspection tolerance, the applicant may:

- a. Request a review inspection of the material portion;
- b. Request a review inspection of the entire lot;
- c. Unload or return the inferior grain;
- d. Receive one certificate for the portion that is uniform to the average dockage percentage and separate certificates for all other percentages of dockage; or
- e. Request that the established tolerances for a dockage average at the next highest certificate level be applied to each subplot in chronological order to determine whether the lot is uniform at that level. If there is a violation to the inspection plan for the tolerances applied under this alternative, the applicant may again choose alternatives "a" through "e."

B. Percent of Dockage Declared.

1. Wheat and Rye. When a dockage level is declared, apply inspection tolerances. Record individual subplot results on the inspection log. If the sublots are accepted by the inspection plan, certificate the average dockage percent. If a material portion exists due to dockage, the applicant may:

- a. Request a review inspection of the material portion;
- b. Request a review inspection of the entire lot;
- c. Unload or return the inferior grain; or

d. Receive a separate certificate(s) for the material portion(s). When using this alternative, material portions with different dockage levels may be combined within increments of 1.0 percent. Do not apply inspection plan tolerances when combining material portions.

2. Other Grains. When a dockage level is declared, apply inspection tolerances. Record individual subplot results on the inspection log. Certificate the lowest dockage level that meets the inspection plan. Determining the lowest level may require reapplying the inspection tolerances for a lower dockage level(s). If the lot does not meet the inspection plan for the declared dockage level, apply the alternatives shown in A. 2. of this section.

3.5 CERTIFICATING SUBCLASS

Some contracts indicate two different subclasses are acceptable for a particular class of grain. These same contracts may establish different sales prices for the grain based on the subclass certificated. Applicants may not know which subclass is available to meet a particular subclass requirement. Consequently, the easiest subclass to fulfill is generally requested by the applicant.

The following procedures are established so an applicant may request certification for a different subclass than that specified in the load order if a different subclass prevails during loading. If requested, official personnel will reapply the inspection plan tolerance for the different subclass. If the lot is acceptable for the requested subclass, that subclass is shown on the certificate.

A. Reapplying the Inspection Plan. If an applicant requests certification for a prevailing subclass other than the subclass specified in the load order, official personnel will:

1. Determine the appropriate grade limit, breakpoint, and starting value for the requested subclass.

2. Reapply the inspection plan tolerances for all sublots and material portions inspected in chronological order using the results recorded on the inspection log.

3. Determine if the lot is uniformly loaded for the specified subclass. If a material portion occurs, the applicant may:

- a. Request a review inspection of the material portion;
- b. Request a review inspection of the entire lot;
- c. Unload or return the material portion;
- d. Receive one certificate for the portion that is uniform and one certificate for the material portion; or
- e. Request certification of the load order subclass for the entire lot.

B. Certification of Prevailing Subclass. If the prevailing subclass is uniformly loaded, certificate the prevailing subclass.

3.6
CERTIFICATING
WHEAT PROTEIN

Wheat protein is inspected and certificated based on the load order request. The load order may indicate a minimum or maximum protein specification; average or ordinary protein specification; or a protein specification having an acceptable range.

If the difference between the highest and lowest sublots in the lot exceeds 1.0 percent, report the actual range using the following statement in the "Remarks" section of the certificate:

"Sublot protein results range from (lowest)% to (highest)%."

Sublots exceeding the 1.0 percent range are not considered material portions. Therefore, the applicant may not request a review inspection of the subplot exceeding the 1.0 percent range limit. The applicant may, however, request a review inspection of the entire lot.

A range statement is not shown on the inspection certificate if the load order specifies a particular range. An applicant may request a range statement if one is needed to fulfill a contract.

A special certification statement is used if the entire lot is reviewed for protein only. The statement identifies which results pertain to the review inspection and which results are from the previous inspection.

"(Protein) results based on the (reinspection/appeal inspection/Board appeal inspection). All other results are those of the (original inspection/reinspection/appeal inspection).

A. Minimum or Maximum Protein Limits. When a load order indicates a minimum or maximum protein limit, inspection tolerances are used to determine acceptable quality. A material portion occurs if the protein cusum value exceeds the breakpoint. If a material portion exists due to protein, the applicant may: (1) request a review inspection of the material portion; (2) request a review inspection of the entire lot; (3) unload or return the inferior grain; or (4) receive a separate certificate(s) for the material portion(s). When the last alternative is requested, material portions with different protein levels may be combined within increments of 1.0 percent. Do not apply inspection plan tolerances when combining material portions.

1. Certificating Acceptable Sublots. All sublots accepted by the inspection plan are combined and certificated as one lot. After accepted sublots are combined to form the lot, official personnel will determine if a range statement is necessary. If the protein range of the lot is within 1.0 percentage points, the protein range statement is not reported on the certificate unless requested by the applicant.

2. Certificating Material Portions. Official personnel may combine and certificate material portions as one lot if the material portions are "like" in quality and are of the same inspection level (i.e., original inspection, reinspection, appeal inspection, Board appeal inspection). "Like" quality includes grain having protein within a 1.0 percent range. Do not apply inspection tolerances when combining material portions. Applicants may request separate certification of material portions.

B. Average or Ordinary Protein Limits. When a load order indicates an average or ordinary protein limit, inspection tolerances are not used to determine acceptable quality. Because inspection tolerances are not used, material portions due to protein cannot occur. Applicants may request a review of the entire lot but not a review of individual sublots.

1. Certificating Acceptable Sublots. All sublots accepted by the inspection plan are combined and certificated as one lot. After accepted sublots are combined to form the lot, official personnel will determine if a range statement is necessary. If the protein range of the lot is within 1.0 percentage points, the protein range statement is not reported on the certificate unless requested by the applicant.

2. Certificating Material Portions. If material portions occur due to a factor other than protein, official personnel may combine and certificate material portions as one lot if the material portions are "like" in quality and are of the same inspection level (i.e., original inspection, reinspection, appeal inspection, Board appeal inspection). "Like" quality includes grain having protein within a 1.0 percent range. Do not apply inspection tolerances when combining material portions. Applicants may request separate certification of material portions.

C. Acceptable Protein Range Limits. When a load order indicates an acceptable protein range for the lot (i.e., minimum as well as maximum limits), inspection tolerances are used to determine acceptable quality at both the minimum and maximum limits. A material portion occurs if the protein cusum value exceeds the breakpoint.

1. Certificating Acceptable Sublots. All sublots accepted by the inspection plan are combined and certificated as one lot. A protein range statement is not reported on the certificate unless requested by the applicant.

2. Certificating Material Portions. Official personnel may combine and certificate material portions as one lot if the material portions are "like" in quality and are of the same inspection level (i.e., original inspection, reinspection, appeal inspection, Board appeal inspection). "Like" quality includes grain having protein within a 1.0 percent range. Do not apply inspection tolerances when combining material portions. Applicants may request separate certification of material portions.

3.7
CERTIFICATING
SOYBEAN OIL
AND PROTEIN

When a load order specifies minimum, maximum, or average limits for oil and/or protein, inspection tolerances are not applied. Therefore, material portions will not occur due to oil and/or protein. Applicants may request a review of the entire lot for oil and/or protein but not a review of individual sublots. The certificate will report the average oil and/or protein content of the lot.

When a load order specifies that no subplot shall exceed a minimum or maximum limit, a material portion occurs whenever the oil and/or protein level exceeds the contract specification. If a material portion exists due to oil and/or protein, the applicant may: (1) request a review inspection of the material portion; (2) request a review inspection of the entire lot; (3) unload or return the inferior grain; or (4) receive a separate certificate(s) for the material portion(s). When the last alternative is requested, material portions with different oil and/or protein levels may be combined. Do not apply inspection plan tolerances when combining material portions.

A special certification statement is used if the entire lot is reviewed for oil and/or protein only. The statement identifies which results pertain to the review inspection and which results are from the previous inspection.

"(Oil and/or protein) results based on the (reinspection/appeal inspection/Board appeal inspection). All other results are those of the (original inspection/reinspection/appeal inspection).

Unlike wheat protein, the range of oil and/or protein is not critical. For this reason, it is not necessary to certificate the actual range of the lot unless it is requested by the applicant.

A. Certificating Acceptable Sublots. All sublots accepted by the inspection plan are combined and certificated as one lot. Certificate the range if requested by the applicant.

B. Certificating Material Portions. Official personnel may combine and certificate material portions as one lot if the material portions are of the same inspection level (i.e., original inspection, reinspection, appeal inspection, Board appeal inspection). Applicants may request separate certification of material portions.